

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS: Oppermann *et al.* Assignee: Stryker Corporation  
APPLICATION NO.: 09/754,831 PATENT NO.: 7,078,221  
FILING DATE.: January 3, 2001 ISSUE DATE: July 18, 2006  
TITLE: Nucleic Acid Molecules Encoding Osteogenic Proteins

Mail Stop Petition  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PETITION PURSUANT TO 37 C.F.R. § 1.78(a)(3) TO CORRECT A  
DOMESTIC PRIORITY CLAIM PURSUANT TO 35 U.S.C. § 120**

Sir:

This is a petition pursuant to 37 C.F.R. § 1.78(a)(3) to correct the domestic priority claim pursuant to 35 U.S.C. § 120 of the above-identified application. The petition fee of \$1410.00 due under 37 C.F.R. § 1.17(t) has been charged to Attorney's Deposit Account No. 50-1721 at the time of filing this paper via EFS-Web. Applicants believe that this fee is sufficient for consideration of this petition; however, if Applicants are in error, please charge any additional fee(s) necessary to Attorney's Deposit Account No. 50-1721.

The following domestic priority claim under 35 U.S.C. § 120 has been recognized by the U.S. Patent and Trademark Office (USPTO) for the above-identified patent application:

This application is continuation of U.S. Application No. 08/375,901, filed January 20, 1995, now U.S. Patent No. 6,261,835, which is a division of U.S. Application No. 08/145,812, filed November 1, 1993, now U.S. Patent No. 5,750,651, which is a division of U.S. Application No. 07/995,345, filed December 22, 1992, now U.S. Patent No. 5,258,494, which is a division of U.S. Application No. 07/315,342, filed February 23, 1989, now U.S. Patent No. 5,011,691, which is a continuation-in-part of U.S. Application No. 07/232,630, filed August 15, 1988, now abandoned, which is a continuation-in-part of U.S. Application No. 07/179,406, filed April 8, 1988, now U.S. Patent No. 4,968,590.

That this priority claim has been recognized by the USPTO is evidenced by its publication on the front page of U.S. Patent No. 7,078,221, the patent number for this application, a copy of which is attached as "Exhibit A."

Applicants have discovered that this priority claim, while correct, is incomplete. Applicants submit that the correct domestic priority is as follows:

This application is a continuation of U.S. Application No. 08/375,901, filed January 20, 1995, now U.S. Patent No. 6,261,835, which is a division of U.S. Application No. 08/145,812, filed November 1, 1993, now U.S. Patent No. 5,750,651, which is a division of U.S. Application No. 07/995,345, filed December 22, 1992, now U.S. Patent No. 5,258,494, which is a continuation of U.S. Application No. 07/621,988, filed December 4, 1990, now abandoned, which is a division of U.S. Application No. 07/315,342, filed February 23, 1989, now U.S. Patent No. 5,011,691, which is a continuation-in-part of U.S. Application No. 07/232,630, filed August 15, 1988, now abandoned, which is a continuation-in-part of U.S. Application No. 07/179,406, filed April 8, 1988, now U.S. Patent No. 4,968,590.

In other words, Applicants inadvertently omitted the reference to U.S. Application No. 07/621,988 from the domestic priority claim under 35 U.S.C. § 120 submitted in the instant application. U.S. Application No. 07/621,988 was abandoned in favor of U.S. Application No. 07/995,345, which was a file wrapper continuation of 07/621,988. This is evidenced by the bibliographic data for U.S. Application No. 07/621,988, available in PAIR, a printout of which is attached as "Exhibit B" and by the continuity data for U.S. Application No. 07/995,345, available in PAIR, a printout of which is attached as "Exhibit C."

Applicants concurrently submit with this Petition a Request for Certificate of Correction under 35 U.S.C. § 254 and 37 C.F.R. § 1.323 to amend the "Related U.S. Application Data" section on the front page of the patent and to amend the "Cross Reference to Related Applications" section of the specification to indicate the relationship of the instant U.S. patent application to the prior filed applications as required under 37 C.F.R. § 1.78(a)(3)(i).

As previously stated, Applicants have charged the \$1410.00 petition fee under 37 C.F.R. § 1.17(t) as required by 37 C.F.R. § 1.78(a)(3)(ii) for acceptance of an unintentionally delayed

claim for priority to Attorney's Deposit Account No. 50-1721 at the time of filing this paper via EFS-Web.

Further, Applicants submit that the entire delay between the date the claim was due under 37 C.F.R. § 1.78(a)(2)(ii) and the date the claim was filed was unintentional. Applicants therefore respectfully request that this petition to amend the domestic priority claim of the instant application under 35 U.S.C. § 120 be granted.

The Examiner of this petition is invited to contact the undersigned attorney if a telephone conversation would be helpful in resolving this issue.

Respectfully submitted,

Date: November 4, 2008  
Limited Recognition No.: L0363

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BOS-1249907 v1

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US007078221B2

(12) **United States Patent**  
**Oppermann et al.**

(10) **Patent No.:** US 7,078,221 B2  
(45) **Date of Patent:** \*Jul. 18, 2006

- (54) **NUCLEIC ACID MOLECULES ENCODING OSTEOGENIC PROTEINS**
- (75) **Inventors:** Hermann Oppermann, Medway, MA (US); Thangavel Kuberasampath, Medway, MA (US); David C. Rueger, West Roxbury, MA (US); Engin Ozkaynak, Milford, MA (US)
- (73) **Assignee:** Stryker Biotech, Hopkinton, MA (US)
- (\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(h) by 662 days.
- This patent is subject to a terminal disclaimer.

(21) **Appl. No.:** 09/754,831

(22) **Filed:** Jan. 3, 2001

(65) **Prior Publication Data**  
US 2003/0228345 A1 Dec. 11, 2003

**Related U.S. Application Data**

- (60) Continuation of application No. 08/375,901, filed on Jan. 20, 1995, now Pat. No. 6,261,835, which is a division of application No. 08/145,812, filed on Nov. 1, 1993, now Pat. No. 5,750,651, which is a division of application No. 07/995,345, filed on Dec. 22, 1992, now Pat. No. 5,258,494, which is a division of application No. 07/315,342, filed on Feb. 23, 1989, now Pat. No. 5,011,691, which is a continuation-in-part of application No. 07/232,630, filed on Aug. 15, 1988, now abandoned, which is a continuation-in-part of application No. 07/179,406, filed on Apr. 8, 1988, now Pat. No. 4,968,590.

- (51) **Int. Cl.**  
C12N L21 (2006.01)  
C12N L19 (2006.01)  
C12N 516 (2006.01)  
C12N 15/12 (2006.01)
- (52) **U.S. Cl.** ..... 435/252.3; 435/254.11; 435/325; 536/23.1; 536/23.5
- (58) **Field of Classification Search** ..... 536/231, 536/235; 435/252.3, 254.11, 325  
See application file for complete search history.

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(Continued)

*Primary Examiner*—Elizabeth Kemmerer  
(74) *Attorney, Agent, or Firm*—Kirkpatrick & Lockhart Nicholson Graham LLP

(57) **ABSTRACT**

Disclosed are 1) osteogenic devices comprising a matrix containing osteogenic protein and methods of inducing endochondral bone growth in mammals using the devices; 2) amino acid sequence data, amino acid composition, solubility properties, structural features, homologues and various other data characterizing osteogenic proteins; 3) methods of producing osteogenic proteins using recombinant DNA technology; and 4) osteogenically and chondrogenically active synthetic protein constructs.

EXHIBIT B



07/621,988

OSTEOGENIC PROTEINS

11-04-

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**Bibliographic Data**

Application Number: 07/621,988

Customer  
Number: -Filing or 371 (c)  
Date: 12-04-1990Status: Abandoned -- File-Wrapper-  
Continuation Parent Application

Application Type: Utility

Status Date: 01-15-1993

Examiner Name: NUTTER, NATHAN M

Location: -

Group Art Unit: 1503

Location Date: 03-16-1993

Confirmation  
Number: 4207Earliest  
Publication No: -Attorney Docket  
Number: CRP-001CP2DVEarliest  
Publication Date: -

Class / Subclass: 530/326

Patent Number: -

First Named  
Inventor: HERMANN OPPERMANN ,  
MEDWAY, MA (US)Issue Date of  
Patent: -

Title of Invention: OSTEOGENIC PROTEINS

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EXHIBIT C

★ 07/995,345 OSTEOGENIC PROTEINS

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### Parent Continuity Data

Description	Parent Number	Parent Filing or 371(c) Date	Parent Status	Patent Number
★ This application is a Continuation of	07/621,988	12-04-1990	Abandoned	-
is a Division of	07/315,342	02-23-1989	Patented	5,011,691
is a Continuation-in-part of	07/232,630	08-15-1988	Pending	-
is a Continuation-in-part of	07/179,406	04-08-1988	Patented	4,968,590

### Child Continuity Data

08/376,731 filed on 01-20-1995 which is Patented claims the benefit of 07/995,345  
 08/375,901 filed on 01-20-1995 which is Patented claims the benefit of 07/995,345  
 08/145,812 filed on 11-01-1993 which is Patented claims the benefit of 07/995,345  
 08/417,071 filed on 04-04-1995 which is Patented claims the benefit of 07/995,345  
 09/074,299 filed on 05-07-1998 which is Patented claims the benefit of 07/995,345  
 11/331,855 filed on 01-13-2006 which is Patented claims the benefit of 07/995,345  
 08/449,699 filed on 05-24-1995 which is Patented claims the benefit of 07/995,345  
 08/920,030 filed on 08-26-1997 which is Abandoned claims the benefit of 07/995,345  
 09/073,080 filed on 05-05-1998 which is Abandoned claims the benefit of 07/995,345  
 09/754,831 filed on 01-03-2001 which is Patented claims the benefit of 07/995,345  
 09/956,582 filed on 09-19-2001 which is Abandoned claims the benefit of 07/995,345  
 10/671,317 filed on 09-25-2003 which is Abandoned claims the benefit of 07/995,345  
 08/957,425 filed on 10-24-1997 which is Patented claims the benefit of 07/995,345  
 10/335,965 filed on 01-02-2003 which is Abandoned claims the benefit of 07/995,345  
 12/195,617 filed on null which is Pending claims the benefit of 07/995,345

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